

## CLINICAL AND GENEALOGICAL STUDY ON A FAMILY PREDISPOSED TO PATHOLOGICAL TEETH ERUPTION.

Dobreva D, D. Kirova, Hr. Lalabonova  
Chair of Oral Surgery, Faculty of Dentistry  
Medical University – Plovdiv

### ABSTRACT:

We studied the members of a family with teeth retention and anodontia. The study included nine maternally related subjects. There were five women and four men aged between 15 and 60 years. The genetic examination showed the inheritance pattern to be of autosomal dominant type.

**Key words:** teeth retention, anodontia

The pathologic teeth eruption etiology is still controversial issue in the literature. There are three main theories related the Pathological Teeth Eruption (P.T.E.) to orthodontic anomalies, phylogenetic reduction and heredity factors. According Rudenco and Adloff, the mandible reduction is the main predisposed factor. Other authors (Jordanoff) deny the influence of mandible angle changes over the P.T.E. The genetic theory is based on large teeth heredity combined with small mandible from both parents.

We provided a clinical and genealogic examination of a family predisposed to P.T.E. in order to evaluate the influence of some discussed and disputable factors.

### MATERIAL AND METHODS

9 patients (4 men and 5 women) aged 15-60, from town of Pazarjik were subjected to clinical, genetic and X-ray examinations. There are all relatives in the female line. 30 teeth were radiographic examined (14 in upper jaw and 16 in lower jaw). P.T.E. was observed in 4 canines, 3 first premolars, 4 second molars and 19 third molars. The genetic study was provided with collaboration with the Department of Biology and Parasitological diseases-Medical University, Plovdiv.

### RESULTS AND DISCUSSION

The initial patient has been referred to the Department of Oral Surgery due to pain in the left coxal articulation considered to be a focal disease. X-rays examination showed impacted lower third molars with positive focal activity test on the right molar. The suspicious tooth was extracted. The second patient from this family has been referred to our clinic due to persistence of dull pain in upper right canine area. Based on anamnesis data, dental inspection and retro alveolar X-rays examination we concluded the presence of deciduous canine in place of the impacted permanent tooth. The radiography showed existence of two impacted unsprung third lower molars, inclined horizontally. The others family members were clinically and X-rays examined without any previous complaints. The results showed localized anodontia alone or anodontia combined with teeth impaction (retention). The genetic examination revealed the inheritance pattern to be of autosomal dominant type. None of the examined patients were suspected for orthodontic anomalies, noxious habits or mandible-teeth disproportion. The result showed the existence of impacted teeth and anodontia. The consistent line is the P.T.E. presence in all cases. The shortage of adequate space for normal eruption of the third molars was detected just in one case. For the other patients the mandible extend allow normal eruption both for compacted and missing (anodontia) teeth.

### CONCLUSION

The results of this study hold the inheritance theory for P.T.E. in its autosomal dominant type pattern.

---

### REFERENCES

1. Йорданов Й., Антропология в стоматологията, Медицина и физкултура, София, 1981, 149.
2. Руденко А.Т., Патология прорезывания зубов мудрости, Ленинград, 1970.
3. Образцов Ю.Л., Частота и структура зубночелюстных аномалии у детей - близнецов, Стоматология, Москва, 2003, 5, 51-4.